

14 October 1994

HIGH FREQUENCY, HIGH POWER SYSTEMS MAINTENANCE

1. Mission Statement. High Frequency (HF), High Power (HP) Systems Maintenance technicians maintain radio equipment used primarily in support of USAF worldwide HF Systems.

2. Authority. The 21-series of Air Force and command directives contain policy and procedural guidance for the HF HP Systems Maintenance element. This element was developed in accordance with policy and procedures contained in AFI 38-201.

3. Applicability. This element applies to peacetime operations only and to all units having this element except the following:

3.1. Combat Communications units.

3.2. Air National Guard and Air Force Reserve units.

3.3. Locations undergoing AFI 38-203 cost comparison studies. Both a positive and negative mission variance must be developed for all work within the organization that has undergone a cost comparison study.

4. Composition. The following factors were considered to determine the manpower required for HF HP Systems Maintenance:

4.1. The level of service of 8 hours per day, 5 days per week is single shift maintenance at 40 hours per week plus on call maintenance for unscheduled outages. Primary Mystic Star sites see para 6.4.

4.2. Indirect work involves those tasks that are not readily identifiable with the work center's specific product or service. The major categories of standard indirect work are Supervision, Administration, Meetings, Training, Supply, Equipment Maintenance, and Cleanup. (Refer to AFMS 00AA (Standard Indirect Description) for more detail.) Man-hours for indirect work are computed in with equipment processes.

4.3. Man-hours for travel are included in the calculation for the core maintenance requirements by using the average monthly mileage in support of the equipment.

4.4. Restoral priorities will be established and followed when personnel respond to multiple outages.

5. Standard Data:

5.1. Classification. Type III

5.2. Approval Date. 1 July 1994

5.3. Man-hour Data Source. Workshop measurement.

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OPR: AFMEA/PLDM

OCR: AFCOMMET/MOMC

Distribution: F

5.4. Manpower Equation:

5.4.1. Transmitter Man-hours

$$Y_c = 105.21(X_1) + 128.15(X_2) + 58.72(X_3)$$

5.4.2. Receiver Man-hours

$$Y_c = 47.81(X_4) + 75.23(X_5) + 27.22(X_6) + 11.85(X_7)$$

5.4.3 Console System Man-hours

$$Y_c = 30.36(X_8) + 229.69(X_9) + 131.29(X_{10})$$

5.4.4. Consolidated System Man-hours

$$Y_c = \text{Transmitter Man-hours} + \text{Receiver Man-hours} + \text{Console System Man-hours}$$

5.4.5. $Y_c = 730.5$ (minimum manpower).

5.5. Workload Factors:

5.5.1. Title:

5.5.1.1. X1 Non-Removable Universal Radio Group (URG) Transmitter Level.

5.5.1.2. X2 Removable URG Transmitter Level.

5.5.1.3. X3 Scope Signal III (SSIII) Transmitter Level.

5.5.1.4. X4 Non-Removable URG Receiver Level.

5.5.1.5. X5 Removable URG Receiver Level.

5.5.1.6. X6 SSIII Receiver Level.

5.5.1.7. X7 Weather Intercept (WX) Receiver Level.

5.5.1.8. X8 Non-Removable URG Control Console.

5.5.1.9. X9 Removable URG Control Console.

5.5.1.10. X10 SSIII Control Console.

5.5.2. Definition:

NOTE 1: A transmitter level is defined as a transmitter and associated equipment (i.e., status display equipment, automatic link establishment (ALE) equipment, antenna(s)) and associated control items (i.e., antenna control equipment, console control, switching equipment) necessary to transmit information over one frequency.

5.5.2.1. X1 The number of non-removable URG transmitter levels maintained. Non-removable URG transmitter levels can be keyed (transmit/modulate only) but not controlled (i.e., frequency changes, sidebands, etc) by the Operations Center. Maintenance personnel must manually change transmitter level conditions.

5.5.2.2. X2 The number of remotable URG transmitter levels maintained. Remotable URG transmitter levels can be keyed (transmit/modulate) and fully controlled/conditioned (i.e., frequency changes, sidebands, etc) by the Operations Center.

5.5.2.3. X3 The number of SSIII transmitter levels maintained. SSIII transmitter levels utilize SSIII equipment.

NOTE 2: A receiver level is defined as a receiver and associated equipment (i.e., status display equipment, automatic link establishment (ALE) equipment, antenna(s)) and associated control items (i.e., antenna control equipment, console control, switching equipment) necessary to receive information over one frequency.

5.5.2.4. X4 The number of non-remotable URG receiver levels maintained. Non-remotable URG receiver levels can be monitored (receive only) but not controlled (i.e., frequency changes, sidebands, etc) by the Operations Center. Maintenance personnel must manually change receiver level conditions.

5.5.2.5. X5 The number of remotable URG receiver levels maintained. Remotable URG receiver levels can be monitored and fully controlled/conditioned (i.e., frequency changes, sidebands, etc) by the Operations Center.

5.5.2.6. X6 The number of SSIII receiver levels maintained. SSIII receiver levels utilize SSIII equipment.

5.5.2.7. X7 The number of Weather Intercept receiver levels maintained. WX receiver levels are dedicated to support the Weather Intercept mission.

5.5.2.8. X8 The number of non-remotable URG control consoles maintained. Non-remotable URG control consoles can only be used to key/modulate the transmitter (transmit) and monitor the receiver (receive). Non-remotable URG control consoles are not capable of changing transmit/receive level conditions (i.e., frequencies, sidebands, etc). Maintenance personnel must manually change level conditions.

5.5.2.9. X9 The number of remotable URG control consoles maintained. Remotable URG control consoles have full control of transmitter and receiver level conditions.

5.5.2.10. X10 The number of SSIII control consoles maintained. SSIII control consoles control SSIII equipment.

NOTE 3: A Scope Control console, although consisting of three components (analog, switchboard, and intercept) will only be counted as one console. Additionally, maintenance consoles will not be included in the workload factor count.

5.5.3. Source: X1 through X10: Determine WLFs, in conjunction with work center supervisor, using above definitions, C-E Equipment Inventory List and/or physical inventory.

5.6. Study Team:

5.6.1. Lead Technician:

MSgt Erasmus (Lead Technician), Mr Beck (Study Manager), AFCOMMET/MOMC

5.6.2 Functional Representatives:

SMSgt Ginter, SMSgt Coleman, HQ AFC4A/SYXR

5.6.3. Program Manager:

MSgt Deas, HQ AFMEA/MEMS

6. Application Instructions:

6.1. The Element Worksheet at attachment 3 must be completed to determine manpower requirements. See attachment 3 for complete instructions.

6.1.1. HF HP Transmitter Systems Maintenance work centers complete Section 1A, Section 2, Section 3 and Section 4 (see NOTE).

6.1.2 HF HP Receiver Systems Maintenance work centers complete Section 1B, Section 2, Section 3 and Section 4 (see NOTE).

6.1.3 HF HP Console Systems Maintenance work centers complete Section 1C, Section 2, Section 3 and Section 4 (see NOTE).

6.1.4 HF HP Consolidated Systems Maintenance work centers complete Section 1, Section 2, Section 3 and Section 4. A consolidated work center consists of a HF HP Control System Maintenance function that is co-located with a HF HP Transmitter Systems Maintenance function or a HF HP Receiver Systems Maintenance function (see NOTE).

NOTE. This worksheet will also be used for all HF HP Systems Maintenance functions that have combined HF HP Control, Receiver, and Transmitter Systems Maintenance into a single work center; or any combination thereof, i.e., Control and Receiver, Control and Transmitter, or Receiver and Transmitter. For example, if Scott AFB has combined its HF HP Receiver and HF HP Transmitter Systems Maintenance work centers into a single work center then they would use Section 1A and 1B to determine their manpower requirements.

6.2. Use appropriate Man-hour Availability Factor (MAF) and OverLoad Factor (OLF) to find the fractional manpower requirement (AFI 38-203).

6.3. Use current rounding rules to determine whole manpower requirements.

6.4. Some work centers have a minimum manpower requirement to support the Primary Mystic Star system 24 hours a day/7 days a week which will require five (5) authorizations. However, the five authorizations only apply if the Element Worksheet (attachment 3) application does not provide sufficient manpower authorizations to meet the minimum manpower requirement. See minimum manpower table identified by asterisk on the Standard Manpower Table, attachment 2.

6.5. Skill and Grade Distribution. Determine skill and grade distribution using the Standard Manpower Table at attachment 2.

7. Statement of Conditions. This element has conditions that impact the work center's ability to perform processes. Specific conditions have been incorporated in the computations of the manpower determinant and are identified below.

7.1. Climatic Conditions. Extreme hot or cold temperatures impact the maintenance time on equipment as well as the frequency of repair actions. Snow and ice cause certain tasks to be done more frequently as well as increase travel time. Rain and humidity impact the frequency of corrosion control performed on equipment. Rain may also increase travel time.

7.2. Physical Conditions. This element is generally not located with the equipment serviced. Therefore, travel time is necessary to accomplish tasks associated with work processes. The age of the equipment directly impacts the frequency of the maintenance requirements.

7.3. Directed Performance Standards. Technical Orders (TOs) and workcards contain directed performance standards for tasks performed by this element. These standards were used in determining frequency of maintenance for PMIs.

8. Miscellaneous. The workload factor for each HF HP receiver/transmitter level and control console accounts for complete maintenance of all components of the HF HP system to include receivers, transmitters, consoles, antenna

matrices, power supplies, frequency standard equipment, and all interface equipment. All other equipment should be identified as variances.

PUBLISHED UNDER THE AUTHORITY OF THE SECRETARY OF THE AIR FORCE

- 4 Attachments
- 1. Work Center Description
- 2. Standard Manpower Table
- 3. Application Worksheet
- 4. Variances

HIGH FREQUENCY, HIGH POWER SYSTEMS MAINTENANCE**WORK CENTER DESCRIPTION**

1. **PERFORMS EQUIPMENT REPAIR:** Receives and reviews notification of equipment malfunction. Coordinates with user. Gathers tools, test equipment, and technical data/documentation. Prepares work area. Troubleshoots (isolates) malfunction. Repairs equipment to include resetting, removing, replacing, aligning, adjusting, calibrating, lubricating, and cleaning equipment; treating corrosion; accomplishing performance check; and documenting action taken. Cleans work area. Stores tools, test equipment, and technical data. Prepares malfunctioning equipment for shipment to depot maintenance. Receives and inspects equipment after depot maintenance to include accomplishing performance check, and documenting action taken. Files documentation.
2. **PERFORMS EQUIPMENT PREVENTIVE MAINTENANCE INSPECTION (PMI):**
Receives and reviews PMI schedule. Coordinates with user. Gathers tools, test equipment, and technical data/documentation. Prepares work area. Performs preventive maintenance inspection to include operational check, time change, lubrication, corrosion control check, visual inspection in accordance with (IAW) applicable technical data, and documents PMI results. Assists in quality control (QC) inspection by providing technical assistance and performing task(s) as requested. Cleans work area. Stores tools, test equipment, and technical data. Files documentation.
3. **PERFORMS EQUIPMENT PARTS ACQUISITION.** Researches and orders part associated with equipment preventive maintenance, equipment repair, equipment modification, and minor equipment installation/ removal.
4. **PERFORMS TRAVEL.** Performs associated travel to and from location of equipment requiring maintenance.
5. **PERFORMS EQUIPMENT MODIFICATION:** Receives and reviews modification documentation. Coordinates with user. Gathers tools, test equipment, modification material, spare parts, and technical data/documentation. Prepares work area. Performs equipment modification IAW applicable directive to include operational check and documenting action taken. Cleans work area. Stores tools, test equipment, spare parts, and technical data. Files documentation.
6. **PERFORMS MINOR EQUIPMENT INSTALLATION/REMOVAL:** Receives and reviews work requirement. Coordinates with requester. Gathers tools, test equipment, and technical data/documentation. Prepares work area. Performs minor installation/removal (or assists appropriate agency) to include operational check and documenting action taken. Cleans work area. Stores tools, test equipment, and technical data. Prepares/turns equipment into appropriate agency. Files documentation.

STANDARD MANPOWER TABLE											
WORK CENTER/FAC			APPLICABILITY MAN-HOUR RANGE								
High Frequency High Power Systems Maint/38FX											
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT								
Ground Radio Comm Crftman	2E173	MSG						1	1	1	1
Ground Radio Comm Crftman	2E173	TSG	1	1	1	1/1	1	1	1	1	1
Ground Radio Comm Jrnymn	2E153	SSG	1	1	1	1/2	2	2	2	2	2
Ground Radio Comm Jrnymn	2E153	SRA		1	1	2/2	2	2	2	3	3
Ground Radio Comm Apr	2E133	A1C			1	1/0	1	1	2	2	3
* Indicates 24-Hour minimum manpower requirement. Due to their limited knowledge and expertise, a 3 level is not authorized											
TOTAL			2	3	4	5/5*	6	7	8	9	10
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT								
Ground Radio Comm Crftman	2E173	MSG	1	1	1	1	1	1	1	1	1
Ground Radio Comm Crftman	2E173	TSG	2	2	3	3	3	3	3	3	3
Ground Radio Comm Jrnymn	2E153	SSG	2	3	3	3	4	4	4	5	5
Ground Radio Comm Jrnymn	2E153	SRA	3	3	3	4	4	5	5	5	5
Ground Radio Comm Apr	2E133	A1C	3	3	3	3	3	3	4	4	5
TOTAL			11	12	13	14	15	16	17	18	19

HIGH FREQUENCY, HIGH POWER SYSTEMS MAINTENANCE**APPLICATION WORKSHEET****INSTRUCTIONS:**

1. HF HP Transmitter Systems Maintenance work centers complete Section 1A, Section 2, Section 3 and Section 4 (see NOTE).
2. HF HP Receiver Systems Maintenance work centers complete Section 1B, Section 2, Section 3 and Section 4 (see NOTE).
3. HF HP Console Systems Maintenance work centers complete Section 1C, Section 2, Section 3 and Section 4 (see NOTE).
4. HF HP Consolidated Systems Maintenance work centers complete Section 1, Section 2, Section 3 and Section 4. A consolidated work center consists of a HF HP Control System Maintenance function that is co-located with a HF HP Transmitter Systems Maintenance function or a HF HP Receiver Systems Maintenance function (see NOTE).

NOTE. This worksheet will also be used for all HF HP Systems Maintenance functions that have combined HF HP Control, Receiver, and Transmitter Systems Maintenance into a single work center; or any combination thereof, i.e., Control and Receiver, Control and Transmitter, or Receiver and Transmitter. For example, if Scott AFB has combined its HF HP Receiver and HF HP Transmitter Systems Maintenance work centers into a single work center then they would use Section 1A and 1B to determine their manpower requirements.

SECTION 1. MAN-HOUR CALCULATIONS:

Determine the type and number of levels/consols (see NOTES 1 thru 10), for each HF HP system. Then compute TOTAL EQUIPMENT MAN- HOURS using subtotals TOTAL MAN-HOURS.

A transmitter level is defined as a transmitter and associated equipment (i.e., status display equipment, automatic link establishment (ALE) equipment, antenna(s)) and associated control items (i.e., antenna control equipment, console control, switching equipment) necessary to transmit information over one frequency.

A receiver level is defined as a receiver and associated equipment (i.e., status display equipment, automatic link establishment (ALE) equipment, antenna(s)) and associated control items (i.e., antenna control equipment, console control, switching equipment) necessary to receive information over one frequency.

A Scope Control console, although consisting of three components (analog, switchboard, and intercept) will only be counted as one console. Additionally, maintenance consoles will not be included in the workload factor count.

NOTE 1: Non-remotable URG transmitter levels can be keyed (transmit/modulate only) but not controlled (i.e., frequency changes, sidebands, etc) by the Operations Center. Maintenance personnel must manually change transmitter level conditions.

NOTE 2: Remotable URG transmitter levels can be keyed (transmit/ modulate) and fully controlled/conditioned (i.e., frequency changes, sidebands, etc) by the Operations Center.

NOTE 3: SSIII transmitter levels utilize SSIII equipment.

NOTE 4: Non-remotable URG receiver levels can be monitored (receive only) but not controlled (i.e., frequency changes, sidebands, etc) by the Operations Center. Maintenance personnel must manually change receiver level conditions.

NOTE 5: Remotable URG receiver levels can be monitored and fully controlled/conditioned (i.e., frequency changes, sidebands, etc) by the Operations Center.

NOTE 6: SSIII receiver levels utilize SSIII equipment.

NOTE 7: Weather Intercept (WX) receiver levels are dedicated to support the Weather Intercept mission.

NOTE 8: Non-remotable URG control consoles can only be used to key/modulate the transmitter (transmit) and monitor the receiver (receive). Non-remotable URG control consoles are not capable of changing transmit/receive level conditions (i.e., frequencies, sidebands, etc). Maintenance personnel must manually change level conditions.

NOTE 9: Remotable URG control consoles have full control of transmitter and receiver level conditions.

NOTE 10: Scope Signal III (SSIII) control consoles control SSIII equipment.

WLF NUMBER	TYPE OF LEVELS/CONSOLES	NUMBER ASSIGNED X	EQUIPMENT VALUE =	EQUIPMENT MAN-HOURS
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A. Transmitter Man-hours:

X1	Non-Remotable URG		X	105.21 =
X2	Remotable URG		X	128.15 =
X3	Scope Signal III		X	58.72 =

TOTAL MAN-HOURS

B. Receiver Man-hours:

X4	Non-Remotable URG		X	47.81 =
X5	Remotable URG		X	75.23 =
X6	Scope Signal III		X	27.22 =
X7	Weather Intercept		X	11.85 =

TOTAL MAN-HOURS

C. Console System Man-hours:

X8	Non-Remotable URG		X	30.36 =
X9	Remotable URG		X	229.69 =
X10	Scope Signal III		X	131.29 =

TOTAL MAN-HOURS

TOTAL EQUIPMENT MAN-HOURS

SECTION 2. VARIANCE MAN-HOUR CALCULATIONS: (Refer to attachment 4, Variances, for definitions.)

Determine type/number of equipment items and compute TOTAL VARIANCE EQUIPMENT MAN-HOURS using the following outline. (For Group Equipment Numbers 1 to 11 refer to AFMS 38AC (Ground (Base) Radio Maintenance for equipment groupings.)

GROUP NUMBER	EQUIPMENT GROUP	EQUIPMENT QTY	X	EQUIPMENT VALUE =	EQUIPMENT MAN-HOURS
V1	UHF/VHF Transmitter		X	4.2472	
V2	UHF/VHF Receiver		X	3.0003	
V3	Recorder/Reproducers (Group B)		X	27.059	
V4	External Linear Power Amp		X	5.5225	
V5	Antenna Tuner Coupler		X	1.6869	
V6	Console Equipment Group		X	11.2893	
V7	Comm Patch Panel		X	5.1833	
V8	HF Receiver (Non HF HP/WX)		X	9.6421	
V9	HF Transceiver		X	14.2639	
V10	Phone Patch		X	2.5651	
V11	GYC-8 Equipment		X	7.431	
V12	Data Modem		X	2.306	
V13	Extended Travel (QTY = Avg Monthly Mileage traveling to and from locations of equip- ment requiring maintenance)		X	0.1122	
V14	Patch & Test Duties	(CONSTANT MHRS)		110.22	
V15	Fixed PA	(CONSTANT MHRS)		9.748	
V16	SLFCS (AN/FRR-98)		X	10.36	
V17	LORAN-C Equipment Maint		X	7.21	
V18	Flotrol Rectifier Maint		X	6.6	
V19	Teletype (Black) Terminal		X	3.02	
V20	Console Indicator Maint		X	1.87	
V21	Switching Systems (SW-3600)		X	5.64	
V22	Data-By-Pass Equipment Maint		X	9.05	
V23	VLf Receiver Maint		X	1.13	
V24	Spectrum Monitor (RSS-5A)		X	1.17	
V25	Chirp Sounder Transmitter		X	7.09	
V26	Control Monitor (Group B)		X	4.7704	

TOTAL VARIANCE EQUIPMENT MAN-HOURS

SECTION 3. ADDITIONAL VARIANCES: Determine other workload variances not identified above and compute TOTAL ADDITIONAL VARIANCE MAN-HOURS as appropriate using the following outline. If equipment is not identified in another AFMS (e.g., Ground (Base) Radio Maintenance), contact the Base Manpower office for guidance.

Variance Title	Equipment QTY	X	Equipment Value	=	Equipment Man-Hours
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TOTAL ADDITIONAL VARIANCE MAN-HOURS

SECTION 4. MANPOWER CALCULATION:

SUM SECTION 1 (TOTAL EQUIPMENT MAN-HOURS),
SECTION 2 (TOTAL VARIANCE EQUIPMENT MAN-HOURS),

SECTION 3 (TOTAL ADDITIONAL VARIANCE MAN-HOURS)
TO DETERMINE TOTAL MAN-HOURS.

TOTAL MAN-HOURS

DIVIDE TOTAL MAN-HOURS BY THE APPROPRIATE MAF AND OLF
TO DETERMINE FRACTIONAL MANPOWER (AFI 38-201).

FRACTIONAL MANPOWER

USE CURRENT ROUNDING RULES TO DETERMINE WHOLE MANPOWER

WHOLE MANPOWER

HIGH FREQUENCY, HIGH POWER SYSTEMS MAINTENANCE**VARIANCES**

V1. Title. Positive Mission Variance for UHF/VHF Transmitter Equipment Maintenance.

V1.1. Definition. Maintenance of UHF/VHF transmitter equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V1.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Davidsonville (XT) MD	OL-C 89 CG	4.25
RAF Croughton (RX) UK	630 CS	8.49

V1.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have UHF/VHF transmitter equipment maintenance responsibilities.

V2. Title. Positive Mission Variance for UHF/VHF Receiver Equipment Maintenance.

V2.1. Definition. Maintenance of UHF/VHF Receiver equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V2.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
RAF Croughton (RX) UK	630 CS	6.00

V2.3. Applicability. This variance applies to the RAF Croughton Receiver, HF HP Systems Maintenance element, that has UHF/VHF receiver equipment maintenance responsibilities.

V3. Title. Positive Mission Variance for Recorder/Reproducers (Group B) Equipment Maintenance.

V3.1. Definition. Maintenance of recorder/reproducers (Group B) equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V3.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Elkhorn NE	Det 2 55 GCSS	81.18
Howard AFB PN	24 WG	27.06
Incirlik AB TU	39 CS	54.12
McClellan (CONS) AFB CA	652 CG	54.12
RAF Croughton (CTL) UK	630 CS	135.30

V3.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have recorder/reproducers (Group B) equipment maintenance responsibilities.

V4. Title. Positive Mission Variance for External Linear Power Amplifier Equipment Maintenance.

V4.1. Definition. Maintenance of external linear power amplifier equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V4.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Elkhorn NE	Det 2 55 GCSS	49.70
Howard AFB PN	24 WG	33.14
RAF Croughton (RX) UK	630 CS	11.05
Scott AFB IL	75 CG	49.70

V4.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have external linear power amplifier equipment maintenance responsibilities.

V5. Title. Positive Mission Variance for Antenna Tuning Unit Coupler Equipment Maintenance.

V5.1. Definition. Maintenance of antenna tuning unit coupler equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V5.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Elkhorn NE	Det 2 55 GCSS	10.12
Scott AFB IL	375 CG	3.37
RAF Barford/St John UK	630 CS	6.75

V5.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have antenna tuning unit coupler equipment maintenance responsibilities.

V6. Title. Positive Mission Variance for Console Equipment Group Maintenance.

V6.1. Definition. Maintenance of console equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V6.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Elkhorn NE	Det 2 55 GCSS	11.29
McClellan (CONS) AFB CA	652 CG	11.29
RAF Croughton (CTL) UK	630 CS	22.58
Incirlik AB TU	9 CS	22.58

V6.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have console equipment maintenance responsibilities.

V7. Title. Positive Mission Variance for Communications Patch Panel Equipment Maintenance.

V7.1. Definition. Maintenance of communications patch panel equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V7.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Elkhorn NE	Det 2 55 GCSS	31.10
Howard AFB PN	24 WG	46.65

V7.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have communications patch panel equipment maintenance responsibilities.

V8. Title. Positive Mission Variance for HF Receiver Equipment Maintenance (Non HF HP Receiver and Weather Intercept equipment).

V8.1. Definition. Maintenance of HF receiver equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V8.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Davidsonville (XT) MD	OL-C 89 CG	9.64
Davis (XT) CA	652 CG	9.64
Karatas AB TU	Det 11 39 CS	96.42
Lincoln (RX) CA	652 CG	9.64
McClellan (CONS) AFB CA	652 CG	9.64
Scott AFB IL	375 CG	9.64
RAF Barford St John UK	630 CS	9.64
RAF Croughton (RX) UK	630 CS	19.28

V8.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have HF receiver equipment maintenance responsibilities.

V9. Title. Positive Mission Variance for HF Transceiver Equipment Maintenance.

V9.1. Definition. Maintenance of HF transceiver equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V9.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Howard AFB PN	24 WG	14.26
Incirlik AB TU	39 CS	71.32
RAF Barford St John UK	630 CS	14.26
RAF Croughton (CTL) UK	630 CS	28.53
RAF Croughton (RX) UK	630 CS	14.26
Scott AFB IL	375 CG	199.70

V9.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have HF transceiver equipment maintenance responsibilities.

V10. Title. Positive Mission Variance for Phone Patch Equipment Maintenance.

V10.1. Definition. Maintenance of phone patch equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V10.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Howard AFB PN	24 WG	2.57
McClellan (CONS) AFB CA	652 CG	5.13

V10.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have phone patch maintenance responsibilities.

V11. Title. Positive Mission Variance for GYC-8 Equipment Maintenance.

V11.1. Definition. Maintenance of GYC-8 equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V11.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
McClellan (CONS) AFB CA	652 CG	7.43
RAF Croughton (RX) UK	30 CS	7.43

V11.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have GYC-8 equipment maintenance responsibilities.

V12. Title. Positive Mission Variance for Data Modem Equipment Maintenance.

V12.1. Definition. Maintenance of data modem equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V12.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Davis (XT) CA	652 CG	4.61
Elkhorn NE	Det 2 55 GCSS	20.75
Incirlik AB TU	39 CS	2.31
RAF Croughton (CTL) UK	630 CS	18.45

V12.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have data modem equipment maintenance responsibilities.

V13. Title. Positive Mission Variance Extended Travel.

V13.1. Definition. Travels to and from Elkhorn NE to Scribner NE to perform maintenance on HF HP System equipment which encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V13.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Elkhorn CA	Det 2 55 GCSS	102.45

V13.3. Applicability. This variance applies all bases having HF HP Systems Maintenance elements that have extended travel to perform equipment maintenance at unmanned sites.

V14. Title. Positive Mission Variance for Patch and Test Duties.

V14.1. Definition. Performs patch and test actions which encompasses accomplishing PMIs on multiplexers, circuit action monitor duties for all lines into sites, circuit repair/ troubleshooting, and assist in troubleshooting IDNX-20, multiplexers, and ADN-48.

V14.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Elkhorn NE	Det 2 55 GCSS	110.22 (CONSTANT)

V14.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that perform patch and test duties when no System Controllers are authorized.

V15. Title. Positive Mission Variance for Fixed Base Public Address (PA) Systems Equipment Maintenance.

V15.1. Definition. Maintenance of fixed PA systems which encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V15.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
RAF Croughton (CTL) UK	630 CS	9.75 (CONSTANT)

V15.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have fixed PA systems maintenance responsibilities.

V16. Title. Positive Mission for Variance Super Low Frequency Communications System (SLFCS) AN/FRR-98 Receiver Equipment Maintenance.

V16.1. Definition. Maintenance of SLFCS AN/FRR-98 receiver equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V16.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Howard AFB PN	24 WG	20.72

V16.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have SLFCS AN/FRR-98 receiver equipment maintenance responsibilities.

V17. Title. Positive Mission for LORAN-C Equipment Maintenance.

V17.1. Definition. Maintenance of LORAN-C equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V17.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Davis (XT) CA	652 CG	7.21
McClellan (CONS) AFB CA	652 CG	7.21

V17.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have LORAN-C equipment maintenance responsibilities.

V18. Title. Positive Mission for Flotrol Rectifier Equipment Maintenance.

V18.1. Definition. Maintenance of flotrol rectifier equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V18.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
McClellan (CONS) AFB CA	652 CG	13.20

V18.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have flotrol rectifier equipment maintenance responsibilities.

V19. Title. Positive Mission for Teletype (Black) Terminal Equipment Maintenance.

V19.1. Definition. Maintenance of teletype (black) terminal equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V19.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
McClellan (CONS) AFB CA	652 CG	3.02

V19.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have teletype (black) terminal equipment maintenance responsibilities.

V20. Title. Positive Mission for Console Indicator Equipment Maintenance.

V20.1. Definition. Maintenance of console indicator equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V20.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
McClellan (CONS) AFB CA	652 CG	7.48

V20.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have console indicator equipment maintenance responsibilities.

V21. Title. Positive Mission for Switching Systems (SW-3600) Equipment Maintenance.

V21.1. Definition. Maintenance of switching systems (SW-3600) equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V21.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
McClellan (CONS) AFB CA	652 CG	5.64

V21.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have switching systems (SW-3600) equipment maintenance responsibilities.

V22. Title. Positive Mission for Data-BY-Pass Equipment Maintenance.

V22.1. Definition. Maintenance of data-by-pass equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V22.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
McClellan (CONS) AFB CA	652 CG	9.05

V22.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have data-by-pass equipment maintenance responsibilities.

V23. Title. Positive Mission for Very Low Frequency (VLF) Receiver Equipment Maintenance.

V23.1. Definition. Maintenance of VLF receiver equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V23.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Brandywine (RX) MD	Det 2 89 CG	1.13

V23.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have VLF receiver equipment maintenance responsibilities.

V24. Title. Positive Mission for Spectrum Monitor (RSS-5A) Equipment Maintenance.

V24.1. Definition. Maintenance of spectrum monitor (RSS-5A) equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V24.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Brandywine (RX) MD	Det 2 89 CG	1.17

V24.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have spectrum monitor (RSS-5A) equipment maintenance responsibilities.

V25. Title. Positive Mission for Chirp Sounder Transmitter Equipment Maintenance.

V25.1. Definition. Maintenance of chirp sounder transmitter equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V25.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Davidsonville (XT) MD	OL-C 89 CG	7.09

V25.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have chirp sounder trans- mitter equipment maintenance responsibilities.

V26. Title. Positive Mission for Control Monitor (Group B) Equipment Maintenance.

V26.1. Definition. Maintenance of control monitor (Group B) equipment encompasses accomplishing PMIs, repairing equipment malfunctions, modifying equipment, ordering parts, and completing appropriate documentation.

V26.2. Impact:

LOCATION	UNIT	MONTHLY MAN-HOURS
Scott AFB IL	375 CG	42.93

V26.3. Applicability. This variance applies to all bases having HF HP Systems Maintenance elements that have control monitor (Group B) equipment maintenance responsibilities.